

Docket No. 12810-00067-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Karl-Heinz Kogel et al.

Application No.: 10/522,106

Confirmation No.: 9243

Filed: January 24, 2005

Art Unit: N/A

For: METHOD FOR OBTAINING THE
PATHOGENIC RESISTANCE IN PLANTS

Examiner: Not Yet Assigned

**RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C.
371 IN THE U. S. DESIGNATED/ELECTED OFFICE (DO/EO/US)**

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notification of Missing Requirements Under 37 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US) dated April 30, 2007 (copy enclosed herewith).

An oath or declaration of the inventors executed in accordance with either 37 CFR § 1.66 or 37 CFR § 1.68 was requested to be furnished. Applicants respectfully submit a newly executed Combined Declaration and Power of Attorney with change of correspondence address believed to be in compliance with either 37 CFR § 1.66 or 37 CFR § 1.68. Applicants additionally request that all pertinent U.S. Patent and Trademark Office records relating to the subject application be changed accordingly. Applicants request that all future correspondence be directed to the new attorneys of record as indicated on the enclosed Declaration.

A replacement Sequence Listing in compliance with 37 CFR §§ 1.822-1.823 was also requested to be submitted. Applicants respectfully submit that a Sequence Listing and associated documents (replacement paper copy, Statement to Support Filing and Submission of Sequence Listing, Computer Readable Format copy on disk, Amendment and Response to Notification to Comply, copy of Notification to Comply) in compliance with 37 CFR §§ 1.821-1.825 was

submitted to the USPTO PCT Legal Office on November 15, 2006 with a Request for Reconsideration. Furthermore, in the Decision regarding the "Request for Reconsideration" dated April 2, 2007, the petition under 37 CFR 1.137(b) was granted. In the Decision, the PCT Legal Examiner acknowledged that "an acceptable CFR was entered into the USPTO database on 12 December 2006, and that the 20 November 2006 submission further included statements that the content of the CFR is identical to the written (on paper or compact disc) sequence listing and includes no new matter. As such, the requirements of 37 CFR § 1.137(b) have now been satisfied."

For convenience, as a courtesy, Applicants enclose herewith a copy of the previous Sequence Listing submission of November 20, 2006, with a copy of the stamped returned postcard and the Decision from the PCT Legal Examiner.

Applicants believe that all requirements have been met and respectfully request that the application be forwarded for examination.

Please charge our Deposit Account No. 03-2775 in the amount of \$130.00 covering the fee set forth in 37 CFR 1.16(f). Additionally, accompanying this response is a petition for a one-month extension of time to and including July 30, 2007 to respond to the Notification of Missing Requirements mailed April 30, 2007 with the required fee authorization. Applicants believe no further fees are due. However, if a fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00067-US from which the undersigned is authorized to draw.

Respectfully submitted,

By 

Roberte M. D. Makowski

Registration No.: 55,421

CONNOLLY BOVE LODGE & HUTZ LLP

1007 North Orange Street; P.O. Box 2207

Wilmington, Delaware 19899

(302) 658-9141

(302) 658-5614 (Fax)

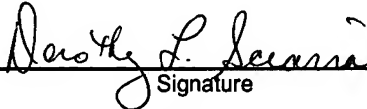
Attorney for Applicants

Certificate of Express Mailing Under 37 CFR 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. EM 037607496 US in an envelope addressed to:

MS Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on July 19, 2007
Date


Signature

Dorothy L. Sciarra

Typed or printed name of person signing Certificate

Registration Number, if applicable

(302) 658-9141
Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Response to notification of missing requirements under 35 U.S.C. 372 in the U.S.
designated/Elected Office (DO/EO/US) (2 pages)
Notification of missing requirement under 35 U.S.C. 372 in the U.S.
designated/Elected Office (DO/EO/US) (9 pages)
Petition for extension of time - 1 month (1 page)
Fee transmittal for FY 2007 (1 page)
Copy of declaration (5 pages)
Decision re: Request for Reconsideration dated 4/2/07 (4 pages)
Copy of previously filed response to notification to comply with requirements for
patent applns. containing nucleotide and/or amino acid seq. disclosures and
amendment (72 pages) with copy of Sequence Listing (CRF copy - 1 Disk)
Certificate of Express Mailing (1 page)
Authorization to charge \$250.00 to deposit account 03-2775

Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). FEE TRANSMITTAL For FY 2007		Complete if Known Application Number 10/522,106-Conf. #9243 Filing Date January 24, 2005 First Named Inventor Karl-Heinz Kogel Examiner Name Not Yet Assigned Art Unit N/A Attorney Docket No. 12810-00067-US	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27			
TOTAL AMOUNT OF PAYMENT (\$) 250.00			

METHOD OF PAYMENT (check all that apply) <input type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input type="checkbox"/> None <input type="checkbox"/> Other (please identify): _____ <input checked="" type="checkbox"/> Deposit Account Deposit Account Number: 03-2775 Deposit Account Name: Connolly Bove Lodge & Hutz LLP For the above-identified deposit account, the Director is hereby authorized to: (check all that apply) <input checked="" type="checkbox"/> Charge fee(s) indicated below <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee <input checked="" type="checkbox"/> Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 <input checked="" type="checkbox"/> Credit any overpayments	
--	--

FEE CALCULATION 1. BASIC FILING, SEARCH, AND EXAMINATION FEES							
Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	
2. EXCESS CLAIM FEES							
Fee Description						Small Entity Fee (\$)	Fee (\$)
Each claim over 20 (including Reissues)						50	25
Each independent claim over 3 (including Reissues)						200	100
Multiple dependent claims						360	180
Total Claims		Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims		
- 20 = _____ x _____ = _____				Fee (\$) Fee Paid (\$)			
HP = highest number of total claims paid for, if greater than 20.							
Indep. Claims		Extra Claims	Fee (\$)	Fee Paid (\$)			
- 3 = _____ x _____ = _____							
HP = highest number of independent claims paid for, if greater than 3.							
3. APPLICATION SIZE FEE If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)			
- 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____							
4. OTHER FEE(S)							
Non-English Specification, \$130 fee (no small entity discount)						Fees Paid (\$)	
Other (e.g., late filing surcharge): 1251 Extension for response within first month						120.00	
1617 Search fee, examination fee or oath or ...						130.00	

SUBMITTED BY			
Signature <i>Roberte M. Makowski</i>	Registration No. (Attorney/Agent) 55,421	Telephone (302) 658-9141	
Name (Print/Type) Roberte M. D. Makowski, Ph.D.	Date July 19, 2007		

07/24/2007 MKAYPAGH 00000159 032775 10522106

01 FC:1617 130.00 DA

PCT
Box 500

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/522,106	Karl-Heinz Kogel	532622010500

INTERNATIONAL APPLICATION NO.

PCT/EP03/07589

I.A. FILING DATE

PRIORITY DATE

07/14/2003

07/22/2002

Morrison & Foerster
1650 Tysons Boulevard, Suite 300
McLean, VA 22102

CONFIRMATION NO. 9243

371 FORMALITIES LETTER



OC000000023595718

Date Mailed: 04/30/2007

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 01/24/2005
- Copy of the International Search Report filed on 01/24/2005
- Copy of IPE Report filed on 01/24/2005
- Preliminary Amendments filed on 01/24/2005
- Biochemical Sequence Diskette filed on 01/24/2005
- Oath or Declaration filed on 01/24/2005
- Biochemical Sequence Listing filed on 01/24/2005
- Request for Immediate Examination filed on 01/24/2005
- U.S. Basic National Fees filed on 01/24/2005
- Assignment filed on 01/24/2005
- Priority Documents filed on 01/24/2005
- Power of Attorney filed on 01/24/2005

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date. The current oath or declaration does not comply with 37 CFR 1.497(a) and (b) in that it:
 - is not executed in accordance with either 37 CFR 1.66 or 37 CFR 1.68.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content

of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

LAMONT M HUNTER

Telephone: (703) 308-9140 EXT 201

PART 2 - OFFICE COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/522,106	PCT/EP03/07589	532622010500

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/522,106

Source: PCT

Date Processed by STIC: 2-2-05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05



PCT

RAW SEQUENCE LISTING

DATE: 02/02/2005

PATENT APPLICATION: US/10/522,106

TIME: 15:31:41

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw

2 <110> APPLICANT: Kogel, Karl-Heinz
 3 Huckelhoven, Ralph
 4 Trujillo, Marco
 6 <120> TITLE OF INVENTION: Method for Obtaining a Pathogen Resistance in Plants
 8 <130> FILE REFERENCE: 532622010500
 --> 10 <140> CURRENT APPLICATION NUMBER: US/10/522,106
 11 <141> CURRENT FILING DATE: 2005-01-24
 13 <160> NUMBER OF SEQ ID NOS: 24
 14 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 112
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Hordeum vulgare
 --> 49 <400> SEQUENCE: 2
 50 Phe Lys Gly Ile Met Asn Glu Ile Ala Glu Leu Asp Gln Arg Asn Ile
 51 1 5 10 15
 52 Ile Glu Met His Asn Tyr Leu Thr Ser Val Tyr Glu Glu Gly Asp Ala
 53 20 25 30
 54 Arg Ser Ala Leu Ile Thr Met Leu Gln Ala Leu Asn His Ala Lys Asn
 55 35 40 45
 --> 56 Gly Val Asp Val Val Ser Xaa Thr Arg Val Arg Thr His Phe Ala Arg
 57 50 55 60
 58 Pro Asn Phe Lys Arg Val Leu Ser Lys Val Ala Ala Lys His Pro Tyr
 59 65 70 75 80
 60 Ala Lys Ile Gly Val Phe Tyr Cys Gly Ala Pro Val Leu Ala Gln Glu
 61 85 90 95
 62 Leu Ser Asn Leu Cys His Glu Phe Asn Gly Lys Cys Thr Thr Lys Phe
 63 100 105 110

2181 <210> SEQ ID NO: 16

2182 <211> LENGTH: 939

2183 <212> TYPE: PRT

2184 <213> ORGANISM: Nicotiana tabacum

--> 2185 <400> SEQUENCE: 16

2186 Met Gln Asn Ser Glu Asn His His Pro His His Gln His His His Ser
 2187 1 5 10 15
 2188 Asp Thr Glu Ile Ile Gly Asn Asp Arg Ala Ser Tyr Ser Gly Pro Leu
 2189 20 25 30
 2190 Ser Gly Pro Leu Asn Lys Arg Gly Lys Lys Ser Ala Arg Phe Asn
 2191 35 40 45

pls explain
"Xaa" location.
Does Not Comply
Corrected Diskette Needed
(pg. 1, 3)
See error explanation
on page 5.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,106

DATE: 02/02/2005

TIME: 15:31:42

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw

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2192 Ile Pro Glu Ser Thr Asp Ile Gly Thr Ser Val Gly Thr Gly Gly Lys
2193      50      55      60
2194 Ser Asn Asp Asp Ala Tyr Val Glu Ile Thr Leu Asp Val Arg Glu Asp
2195 65      70      75      80
2196 Ser Val Ala Val His Ser Val Lys Thr Ala Gly Gly Asp Asp Val Glu
2197      85      90      95
2198 Asp Pro Glu Leu Ala Leu Leu Ala Lys Gly Leu Glu Lys Lys Ser Thr
2199      100     105     110
2200 Leu Gly Ser Ser Leu Val Arg Asn Ala Ser Ser Arg Ile Arg Gln Val
2201      115     120     125
2202 Ser Gln Glu Leu Arg Arg Leu Ala Ser Leu Asn Lys Arg Pro Ile Pro
2203      130     135     140
2204 Thr Gly Arg Phe Asp Arg Asn Lys Ser Ala Ala Ala His Ala Leu Lys
2205 145     150     155     160
2206 Gly Leu Lys Phe Ile Ser Lys Thr Asp Gly Gly Ala Gly Trp Ala Ala
2207      165     170     175
2208 Val Glu Lys Arg Phe Asp Glu Ile Thr Ala Ser Thr Thr Gly Leu Leu
2209      180     185     190
2210 Pro Arg Ala Lys Phe Gly Glu Cys Ile Gly Met Asn Lys Glu Ser Lys
2211      195     200     205
2212 Glu Phe Ala Val Glu Leu Tyr Asp Ala Leu Ala Arg Arg Arg Asn Ile
2213      210     215     220
2214 Thr Thr Asp Ser Ile Asn Lys Ala Gln Leu Lys Glu Phe Trp Asp Gln
2215 225     230     235     240
2216 Val Ala Asp Gln Ser Phe Asp Ser Arg Leu Gln Thr Phe Phe Asp Met
2217      245     250     255
2218 Val Asp Lys Asp Ala Asp Gly Arg Ile Thr Glu Glu Glu Val Arg Glu
2219      260     265     270
2220 Ile Ile Gly Leu Ser Ala Ser Ala Asn Arg Leu Ser Thr Ile Gln Lys
2221      275     280     285
2222 Gln Ala Asp Glu Tyr Ala Ala Met Ile Met Glu Glu Leu Asp Pro Asn
2223      290     295     300
2224 Asn Leu Gly Tyr Ile Met Ile Glu Asn Leu Glu Met Leu Leu Leu Gln
2225 305     310     315     320
2226 Ala Pro Asn Gln Ser Val Gln Arg Gly Gly Glu Ser Arg Asn Leu Ser
2227      325     330     335
2228 Gln Met Leu Ser Gln Lys Leu Lys His Thr Gln Glu Arg Asn Pro Ile
2229      340     345     350
2230 Val Arg Trp Tyr Lys Ser Phe Met Tyr Phe Leu Leu Asp Asn Trp Gln
2231      355     360     365
2232 Arg Val Trp Val Leu Leu Leu Trp Ile Gly Ile Met Ala Gly Leu Phe
2233      370     375     380
2234 Thr Trp Lys Tyr Ile Gln Tyr Lys Glu Lys Ala Ala Tyr Lys Val Met
2235 385     390     395     400
2236 Gly Pro Cys Val Cys Phe Ala Lys Gly Ala Ala Glu Thr Leu Lys Leu
2237      405     410     415
2238 Asn Met Ala Ile Ile Leu Phe Pro Val Cys Arg Asn Thr Ile Thr Trp
2239      420     425     430
2240 Leu Arg Asn Lys Thr Arg Leu Gly Ala Ala Val Pro Phe Asp Asp Asn

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,106

DATE: 02/02/2005

TIME: 15:31:42

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw

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2241          435          440          445
2242 Leu Asn Phe His Lys Val Ile Ala Val Ala Ile Ala Leu Gly Val Gly
2243          450          455          460
2244 Ile His Gly Leu Ser His Leu Thr Cys Asp Phe Pro Arg Leu Leu Asn
2245 465          470          475          480
2246 Ala Ser Glu Glu Glu Tyr Glu Pro Met Lys Tyr Tyr Phe Gly Asp Gln
2247          485          490          495
2248 Pro Glu Ser Tyr Trp Trp Phe Ile Lys Gly Val Glu Gly Val Thr Gly
2249          500          505          510
2250 Ile Ile Met Val Val Leu Met Ala Ile Ala Phe Thr Leu Ala Thr Pro
2251          515          520          525
2252 Trp Phe Arg Arg Asn Arg Val Ser Leu Pro Lys Pro Phe His Lys Leu
2253          530          535          540
--> 2254 Thr Gly Xaa Asn Ala Phe Trp Tyr Ser His His Leu Phe Val Ile Val
2255 545          550          555          560
2256 Tyr Thr Leu Phe Ile Val His Gly Glu Lys Leu Tyr Ile Thr Lys Asp
2257          565          570          575
2258 Trp Tyr Lys Arg Thr Asp Met Asp Val Leu Leu Thr Ile Pro Ile Ile
2259          580          585          590
2260 Leu Tyr Ala Ser Glu Arg Leu Ile Arg Ala Phe Arg Ser Ser Ile Lys
2261          595          600          605
2262 Ala Val Lys Ile Leu Lys Val Ala Val Tyr Pro Gly Asn Val Leu Ala
2263          610          615          620
2264 Leu His Met Ser Lys Pro Gln Gly Tyr Lys Tyr Lys Ser Gly Gln Tyr
2265 625          630          635          640
2266 Met Phe Val Asn Cys Ala Ala Val Ser Pro Phe Glu Trp His Pro Phe
2267          645          650          655
2268 Ser Ile Thr Ser Ala Pro Gly Asp Asp Tyr Leu Ser Val His Ile Arg
2269          660          665          670
2270 Thr Leu Gly Asp Trp Thr Arg Gln Leu Lys Thr Val Phe Ser Glu Val
2271          675          680          685
2272 Cys Gln Pro Pro Pro Asn Gly Lys Ser Gly Leu Leu Arg Ala Asp Tyr
2273          690          695          700
2274 Leu Gln Gly Glu Asn Asn Pro Asn Phe Pro Arg Val Leu Ile Asp Gly
2275 705          710          715          720
2276 Pro Tyr Gly Ala Pro Ala Gln Asp Tyr Lys Lys Tyr Glu Val Val Leu
2277          725          730          735
2278 Leu Val Gly Leu Gly Ile Gly Ala Thr Pro Met Ile Ser Ile Val Lys
2279          740          745          750
2280 Asp Ile Val Asn Asn Met Lys Ala Met Asp Glu Glu Glu Asn Ser Leu
2281          755          760          765
2282 Glu Asp Gly His Asn Asn Asn Met Ala Pro Asn Ser Ser Pro Asn Ile
2283          770          775          780
2284 Ala Lys Asn Lys Gly Asn Lys Ser Gly Ser Ala Ser Gly Gly Asn Asn
2285 785          790          795          800
2286 Phe Asn Thr Arg Arg Ala Tyr Phe Tyr Trp Val Thr Arg Glu Gln Gly
2287          805          810          815
2288 Ser Phe Asp Trp Phe Lys Gly Ile Met Asn Glu Ala Ala Glu Met Asp
2289          820          825          830

```

←
pls
explain
Xaa location.

pls see
error
explanation
on page 5.

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/522,106

DATE: 02/02/2005

TIME: 15:31:42

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw

```

2290 His Lys Gly Val Ile Glu Met His Asn Tyr Cys Thr Ser Val Tyr Glu
2291      835      840      845
2292 Glu Gly Asp Ala Arg Ser Ala Leu Ile Thr Met Leu Gln Ser Leu His
2293      850      855      860
2294 His Ala Lys Asn Gly Val Asp Ile Val Ser Gly Thr Arg Val Lys Ser
2295 865      870      875      880
2296 His Phe Ala Lys Pro Asn Trp Arg Asn Val Tyr Lys Arg Ile Ala Leu
2297      885      890      895
2298 Asn His Pro Glu Ala Lys Val Gly Val Phe Tyr Cys Gly Ala Pro Ala
2299      900      905      910
2300 Leu Thr Lys Glu Leu Arg Gln His Ala Leu Asp Phe Ser His Lys Thr
2301      915      920      925
2302 Ser Thr Lys Phe Asp Phe His Lys Glu Asn Phe
2303      930      935

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VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/10/522,106

DATE: 02/02/2005

TIME: 15:31:43

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw,

se of n's or Xaa's (NEW RULES): *ERROR EXPLANATION: ✓*
se of n's and/or Xaa's have been detected in the Sequence Listing.
se of <220> to <223> is MANDATORY if n's or Xaa's are present.
n <220> to <223> section, please explain location of n or Xaa, and which
esidue n or Xaa represents.

eq#:1; Xaa Pos. 55 ✓

eq#:2; Xaa Pos. 55 ✓

eq#:15; N Pos. 1952 ✓

eq#:15; Xaa Pos. 547 ✓

eq#:16; Xaa Pos. 547 ✓

VERIFICATION SUMMARY

DATE: 02/02/2005

PATENT APPLICATION: US/10/522,106

TIME: 15:31:43

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\02022005\J522106.raw

:10 M:270 C: Current Application Number differs, Replaced Current Application Number
:15 M:283 W: Missing Blank Line separator, <210> field identifier
:19 M:283 W: Missing Blank Line separator, <220> field identifier
:23 M:283 W: Missing Blank Line separator, <400> field identifier
:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:193
:49 M:283 W: Missing Blank Line separator, <400> field identifier
:56 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:2
:69 M:283 W: Missing Blank Line separator, <220> field identifier
:73 M:283 W: Missing Blank Line separator, <400> field identifier
:255 M:283 W: Missing Blank Line separator, <400> field identifier
:379 M:283 W: Missing Blank Line separator, <220> field identifier
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:702 M:283 W: Missing Blank Line separator, <400> field identifier
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:1032 M:283 W: Missing Blank Line separator, <220> field identifier
:1036 M:283 W: Missing Blank Line separator, <400> field identifier
:1234 M:283 W: Missing Blank Line separator, <400> field identifier
:1364 M:283 W: Missing Blank Line separator, <220> field identifier
:1368 M:283 W: Missing Blank Line separator, <400> field identifier
:1556 M:283 W: Missing Blank Line separator, <400> field identifier
:1680 M:283 W: Missing Blank Line separator, <220> field identifier
:1684 M:283 W: Missing Blank Line separator, <400> field identifier
:1868 M:283 W: Missing Blank Line separator, <400> field identifier
:1990 M:283 W: Missing Blank Line separator, <220> field identifier
:1994 M:283 W: Missing Blank Line separator, <400> field identifier
:2102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:1935
:341 Repeated in SeqNo=15
:2185 M:283 W: Missing Blank Line separator, <400> field identifier
:2254 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:16
:2309 M:283 W: Missing Blank Line separator, <220> field identifier
:2313 M:283 W: Missing Blank Line separator, <400> field identifier
:2477 M:283 W: Missing Blank Line separator, <400> field identifier
:2589 M:283 W: Missing Blank Line separator, <220> field identifier
:2593 M:283 W: Missing Blank Line separator, <400> field identifier
:2763 M:283 W: Missing Blank Line separator, <400> field identifier
:2879 M:283 W: Missing Blank Line separator, <220> field identifier
:2883 M:283 W: Missing Blank Line separator, <400> field identifier
:3059 M:283 W: Missing Blank Line separator, <400> field identifier
:3179 M:283 W: Missing Blank Line separator, <220> field identifier
:3182 M:283 W: Missing Blank Line separator, <400> field identifier
:3190 M:283 W: Missing Blank Line separator, <220> field identifier
:3198 M:283 W: Missing Blank Line separator, <400> field identifier